

## ABSTRACT OF THE DISCLOSURE

The present invention provides a machine-oriented notation for representation and interchange of extensible documents, as well as a method, system, and computer program product for operating upon (e.g. parsing, and storing documents in) this notation. The notation is designed to be significantly more compact than the Extensible Markup Language (XML), while still conveying the content and semantics of the data and the structure of the document. An existing XML document may be converted to this machine-oriented notation, which is referred to herein as "mXML" for "machine-oriented XML". Or, documents may be created directly in mXML as an alternative to creation in XML. In the general case, a document represented using the mXML notation can be processed much more efficiently than when using the existing human-friendly XML notation, requires much less storage space, and has a significantly lower transmission cost for data interchange. XML documents can be converted to mXML using techniques of the present invention. For those cases where it is necessary or desirable for a human to see the document in the human-friendly form (for example, for directly editing the document from its source file), a document represented in mXML can be easily converted to XML using techniques of the present invention. The novel techniques disclosed herein are also applicable to notations other than XML.